

REMARKS

Vergason teaches a mandatory use of arc sensors to oscillate his arc. Applicant has added the limiting element, “without a use of an arc sensor” to distinguish Vergason in claims 20, 21, 23, 26, 28, 30, 33, 36. Applicant believes these independent claims are now allowable because of the simplicity of Applicant’s invention compared to Vergason.

Sablev’s anode is not his metal shield 82 as understood by Examiner. Sablev defines his anode as the chamber, col. 14, line 10. Applicant argues that claims 24, 25 are allowable without amendment.

Claims 24, 25, 26, 27, 28 are rejected as being anticipated and/or obvious in view of Sablev et al.

USPTO explanation: --- The whole of the non-evaporation surface is closed with a metal shield 82. (This is understood to be an anode). ----- Fig. 4; column 13 lines 32-38; column 13 lines 60-63.

Applicant argument: Metal shield 82 is not an anode but a “means of retaining the cathode spot on the surface (column 3, lines 19,20). If continued, it further explains the purpose of the shield being close to evaporation surface and to prevent transition of arc to non-evaporation surface, e.g. anode. (column 3, lines 25 to 32).

As for the anode being independent of the shield, column 3, line 21 to 23 see that “the apparatus for evaporation coating has an anode which is essentially an envelope of arbitrary shape. Further down in column 3, lines 39, 40, “it is likewise preferred that the inner walls of the evacuated chamber be used as the envelope”. This clearly explains the independence of the shield from the anode. If the shield were removed from the proximity of the cathode and made as anode walls, the arc would not stay on the cathode and transit to non-evaporation surfaces. Furthermore in column 4, lines 65 and 66, it says, “It is preferred that the shield be electrically insulated from the cathode and anode”.

Examples of anode being independent of the shield:

Sablev Fig. 1: Column 8, lines 40 to 57:

Cathode 9 with its side walls 11 and 12 is isolated from shield 21 using gap 22. This shield is isolated from the chamber and its lid using insulator 23. Further in column 9, lines 19 to 24, anode 25 is uncoupled from the lid of the chamber by means of an insulator 28. In this case, an independent isolated anode is used. There is no mention anywhere in the text of electrically connecting the shield and the anode. This clearly indicates independence of the insulator from the anode. In conclusion, the shield is electrically floating.

Sablev Figs. 4 and 5 are modified version of Fig. 1:

Per column 14, lines 10 to 20:

Clearly states that “Serving as the apparatus anode are the inner walls of the evacuated chamber --- etc.”. In this column on line 15, it is clearly stated that, “--- the inner walls of the evacuated chamber alone can perform the anode function. It further mentions simplicity of not having independent anode from the chamber. In this case, the difference from Fig. 1 is not having independent anode but using chamber inner walls as anode. Further, column 14, lines 32 and 33 state the similarity of Fig. 4 with Fig. 1.

Sablev Fig. 6: Column 15, lines 11 to 19:

Apparatus surface 107 acts as anode. Circular shields 109 held by grooves in the insulator 102 limit the cathode evaporation surface. Then it says (lines 16 to 19), “The shields 109 are insulated from the electrodes of the apparatus and from each other and shield the whole of the non-evaporation surface 110”. Here the “electrodes” of the apparatus are anode and cathode.

Sablev Fig. 7: Column 16, lines 27 to 35:

Cathode surface 126 is covered by four magnetically soft metal shields 137 secured by insulators 138 and 139. The evacuated chamber 123 serves as anode of the apparatus. The shields are insulated from the apparatus.

Sablev Fig. 8 uses shield 150 made from a heat resistant insulating material, so it cannot be the anode.

Sablev Fig. 9 does not detail anode and shield relationship. This figure is for using sorption high-vacuum pump.

Applicant has rewritten all the “objected to” claims 2-6, 8 and 17 as requested by Examiner.

LAW OF OBVIOUSNESS

It is well known that most inventions are composed of elements that *per se* are old and well known. That however, does not make an invention “obvious” under 35 U.S.C. 103. The Examiner’s attention is respectfully drawn to, for example, *ACS Hospital Systems, Inc. v. Montefiore Hospital et al.*, 732 F.2d 1572, 1577, 221 USPQ 929 (Fed. Cir. 1984), wherein the Court held that “[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed combination, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so.”

Also, as stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540, 1553, 220 USPQ 303 (Fed. Cir. 1983):

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Finally, even if all the constituents of an invention may be old, if the result would not have been obvious at the time the invention was made to a person having ordinary skill in the art, then the result may be patentable. *Reiner v. I. Leon Co.*, 285 F.2d 501, 503-504, 128 USPQ 25, (2d Cir. 1960).

In order to determine the basis for the rejection, the Examiner must:

- 1). Determine the scope and contents of the prior art;
- 2). Ascertain the differences between the prior art and the claims in issue;
- 3). Resolve the level of ordinary skill in the pertinent art; and
- 4). Evaluate evidence of secondary considerations.

Other basic considerations include:

- 1). The claimed invention must be considered as a whole;
- 2). The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- 3). The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- 4). Reasonable expectation of success is the standard with which obviousness is determined.

Finally, to sustain a *prima facie* case of obviousness:

- 1). There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2). There must be a reasonable expectation of success; and
- 3). The prior art reference must teach or suggest all the claim limitations.

The Examiner fails to meet the requirements to sustain an obviousness rejection based on these references.

LAW OF ANTICIPATION

Section 102 (e) provides:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent....

A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described, in a single prior art reference. See: *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed Cir. 1987), *Structural Rubber Prods. CO. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270, (Fed. Cir. 1984), *Connell*, 722 F.2d at 1548, 220 USPQ at 198; *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026, 104 S. Ct. 1284, 79 L. Ed.2d 687 (1984).

Applicant respectfully requests the Examiner to pass this application to allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rick Martin", with a long horizontal flourish extending to the right.

Date: 8-17-04

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